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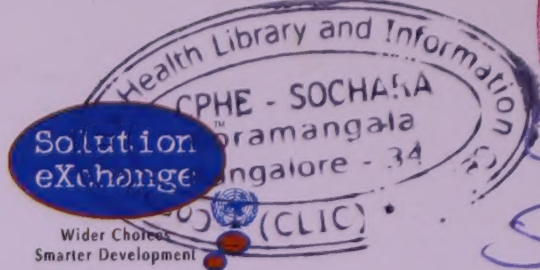
# Disaster Management Community

## Consolidated Reply

Improving Preparedness and Community Participation







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## Solution Exchange

### An Initiative of the United Nations in India

In a country as large and vibrant as India, development workers operate in knowledge-rich environments where continuous experimentation and implementation of innovative ideas goes on. While some of this knowledge has been codified and shared, much of the larger pool knowledge gained through these experiences remain undocumented, out of the reach of practitioners, and in danger of being forgotten.

Attempting to harness this knowledge, the United Nations agencies in India support this knowledge-sharing initiative to help improve development effectiveness in support of achieving the objectives of India's Five-Year Plans and the Millennium Development Goals (MDGs).

The UN's Solution Exchange initiative builds **Communities of Practice** (CoPs), by connecting people with similar concerns and interests through email groups and face-to-face interactions. The objective is to leverage India's knowledge pool to help ensure that no one "reinvents the wheel."

So far, Solution Exchange in India has established eleven Communities of Practice:

- AIDS
- Gender
- Decentralization
- Health - Maternal and Child Health
- Disaster Management
- Education
- Environment Water
- Food and Nutrition Security

Three new Communities  
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Members use the Solution Exchange to share experiences with colleagues from a range of options from first-hand knowledge and learn from this way, Solution Exchange is channeling this into more effective development interventions and development goals and the MDGs.



# COMMUNITY HEALTH CELL

*Library and Information Centre*

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The **Disaster Management Community** is a group of professionals concerned with preparedness, mitigation, response, recovery and rehabilitation issues with respect to disasters (natural and human induced).

**Solution Exchange** connects members of this Community and increases the effectiveness of their individual efforts, helping them share and apply each other's knowledge and experience. Through Solution Exchange, colleagues can turn to their peers across India for solutions to the day-to-day challenges they face.

## Key Issues

- Hazards: droughts, earthquakes, floods, fires, tsunamis, cyclones, landslides, avalanches, accidents (road, railroad, and air), extreme climate, dam failures, urban disasters, and nuclear, biological, chemical and industrial disasters
- Phases
  - Before: preparedness, mitigation, prevention, early warning, awareness, etc
  - During: emergency response, relief and rescue
  - After: response, rehabilitation/reconstruction and recovery
- Techniques and Tools: damage and vulnerability assessment formats, disaster resistant construction techniques and designs, retrofitting techniques and Standard Operating Procedures (SOPs), etc.
- Institutional and Policy Issues: governance in disaster management, role of coordination among various actors and mainstreaming disaster management into development work
- Addressing the concerns of vulnerable groups

For **further information** on the Disaster Management Community contact:

**G. Padmanabhan**

**Resource Person & Moderator**

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Go to <http://www.solutionexchange-un.net.in/>  
and click on the **Disaster Management** link



## **Consolidated Reply**

Members of the Disaster Management Community are part of a moderated mail group. The primary interaction in the community is through email. A member poses a query to the community and other members respond based on their experience and knowledge. The query can seek advice, experiences, examples or referrals.

The responses received within the time limit provided, are used by the Resource Team to formulate a Consolidated Reply (CR), which is then share it with all the members. The purpose of the CR is to give members a range of possible solutions to the issue raised.

The CR consists of summary of the responses, comparative experiences shared by members, details about recommended resources (like reports, articles, books, organizations, websites and experts) and all the responses received. The Resource Team also provides additional research relevant to the issue. The moderation of the responses, research support, attractive format and short turn around time are some of the special features of a CR.

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# Disaster Management Community



## Solution Exchange for the Disaster Management Community

### Consolidated Reply

*Improving Preparedness and Community Participation-Experiences*

**Compiled by G. Padmanabhan, Resource Person and Nupur Arora, Research Associate**

29 May 2007

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**From General N.C. Vij, National Disaster Management Authority, Government of India, New Delhi**

**Posted: 19 April 2007**

Dear Friends at the Disaster Management Community,

Greetings from the National Disaster Management Authority (NDMA)!

As the Vice Chairperson of the National Disaster Management Authority, I am delighted to be the first one to take advantage of the Solution Exchange Disaster Management Community. It is a new platform provided by the UN System in India for practitioners to learn from each other about various aspects of disaster management. I understand that we already have over 500 members signed up from a wide range of organizations and regions across India.

An aware and prepared **"community"** will be the ideal prime mover for efficient management of disasters. It goes without saying that a much improved government preparedness and response mechanism will support this effort. I would therefore like to ask members of the Community, to please share their experiences on how to improve **preparedness and community participation levels** for efficient management of disasters.

Looking forward to your responses.



## Responses were received, with thanks, from

1. **N. K. Agarwal**, Geological Survey of India, Dehradun ([Response 1](#); [Response 2](#))
2. **Gyana Ranjan Das**, United Nations Development Programme (UNDP), Bhubaneswar
3. **Ikbal Hussain Lascar**, United Nations Development Programme (UNDP), Assam
4. **Ramesh Jain**, American Embassy, New Delhi
5. **Deepa Prasad**, United Nations Development Programme (UNDP), Bhubaneswar ([Response 1](#); [Response 2](#))
6. **Rajesh Gopal**, Gujarat State AIDS Control Society (GSAC), Ahmedabad ([Response 1](#); [Response 2](#))
7. **M. Maheswar Rao**, Deputy Commissioner' Office, Government of Karnataka, Mangalore
8. **C. Baskaran**, Community Consulting India Pvt. Ltd., Chennai
9. **Farrukh Rahman Khan**, Find Your Feet-India, Lucknow
10. **Amit Kumar**, Yashwantrao Chavan Academy of Development Administration (Yashada), Pune
11. **Ghatit Laheru**, Saline Area Vitalisation Enterprise (SAVE), Ahmedabad
12. **Pradeep Kumar Jena**, United Nations Development Programme (UNDP), Bhubaneswar
13. **Franklin Joseph**, World Vision, Chennai
14. **P. C. Joshi**, Delhi University, New Delhi
15. **Ramesha Gowda**, Karnataka State Pollution Control Board, Bangalore
16. **Ashok Hans**, Shanta Memorial Rehabilitation Centre (SMRC), Bhubaneswar



17. [Sanjiv Lewin](#), St. John's Medical College Hospital, Bangalore
18. [Suresh Bada Math](#), National Institute of Mental Health and Neuro Sciences, Bangalore
19. [S. Janakarajan](#), Madras Institute of Development Studies (MIDS), Chennai
20. [Ravinder Nath Goswami](#), Indian Mountaineering Foundation, New Delhi
21. [Abha Mishra](#), United Nations Development Organization (UNDP), New Delhi
22. [Avdhash Kaushal](#), Rural Litigation and Entitlement Kendra (RLEK), Dehradun
23. [Mahesh Uppal](#), ComFirst (India) Pvt. Ltd., New Delhi
24. [N. B. Mathur](#), Confederation of Indian Industry (CII), New Delhi
25. [Rashmi Gangwar](#), Centre for Environment Education, Lucknow
26. [Santosh Kumar](#), National Institution for Disaster Management (NIDM), New Delhi
27. [H. S. Sharma](#), Independent Consultant, Gurgaon
28. [M. P. Sajnani](#), Asian Disaster Preparedness Centre (ADPC), New Delhi
29. [Rama Kashyap](#), United Nations Development Programme (UNDP), Chennai
30. [Arun Sahdeo](#), National Institute of Disaster Management (NIDM), New Delhi
31. [Amit Tuteja](#), Tata Chemicals Ltd., Uttar Pradesh
32. [Sampurnananda Mahaparta](#), United Nations Development Programme (UNDP), New Delhi

*Further contributions are welcome!*



## Summary of Responses

The Disaster Management Communities' first query on "Improving Preparedness and Community Participation," drew a surge of responses from members. They shared experiences of community based disaster preparedness and responses initiatives, and suggested tools, techniques and various policy measures to improve Preparedness and community participation levels.

Members felt **defining "community"** was the first step towards community preparedness and stressed that any strategy must focus on the "community" and its problems. Communities interface with the risk associated with hazards the most and thus are in the best position to understand the risks. Moreover they argued a shift in paradigm from "relief and rescue" to "disaster prevention and preparedness" is necessary for true community preparedness planning to occur. Highlighting various **disaster preparedness and response efforts** from across the country, respondents noted the importance of community participation and shared several examples of initiatives that effectively prepared communities for potential disasters. In [Karnataka](#), several districts participated in school awareness and safety programmes and in one district communities helped form a volunteer district level disaster response team and in [Uttar Pradesh](#), a community worked together to implement village level disaster preparedness activities. Example of lessons learned from [Jammu and Kashmir](#) highlighted a school awareness and training programme conducted after the 2006 earthquake to help schools and local villages communities reduce disaster risks. Moreover, members mentioned the five year old "Community-Based Disaster Reduction and Recovery through Participation of Communities and Local Self-Government" programme that the United Nations Development Programme (UNDP) and the Government are implementing in [17 states](#).

Respondents also listed community initiatives, which successfully managed disasters, like in [Gujarat](#), where communities with guidance from the State Disaster Management Authority carried out effective relief and rescue after the Sabarmati train accident and Surat floods and in [Assam](#), where local communities assisting in flood relief as well as in [Orissa](#) where community and faith-based groups worked together to provide relief management the Super Cyclone. Additionally, discussants mentioned examples community preparedness efforts in [Tamil Nadu](#) and [Orissa](#) that during a subsequent disaster resulted in successful response and in [Maharashtra](#) and [Orissa](#) examples of effective drought mitigation initiatives taken up following community level training and planning initiatives.

Drawing from these experiences, respondents felt that a demand driven, government enabled/facilitated, voluntary and consultative approach to disaster preparedness would be the best method for identifying vulnerabilities, finding the best solutions and ensuring practical and sustainable implementation of



community-based disaster preparedness plans. To increase preparedness, members outlined broad **preparedness techniques**.

One technique, respondents discussed in detail was **disaster management (DM) planning** and stressed the need take the following steps:

- Conducting vulnerability and capacity assessments for communities (including coastal areas)
- Collecting and ensure availability of data on disasters and impact to help in planning and decision making process
- Establishing a nationwide helpline on disasters and Emergency Operations Centers (EOCs)
- Holding emergency mock drills periodically
- Equipping hospital emergency services and trauma centers with the necessary equipments and training to handle disasters

Respondents also proposed a few **knowledge sharing** initiatives, such as including "Preparing Damage Prevention and Reduction Strategies" in Earth Science classes and adding DM in the curriculum of Vocational Training Centres and Technical Institutes; generating awareness on existing safety measures in schools and other public institutions; and sharing information on current government DM initiatives and schemes with the stakeholders.

Another suggestion to improve preparedness was to implement **structural mitigation** measures, like:

- Building "super structures" to act as Emergency Operation Centres and Shelters during emergencies and as educational institutes during non-disaster times
- Enforcing strict compliance of with building and construction by-laws and timely upgrading
- Micro-zonation of Urban Habitats existing and proposed
- Retrofitting or demolition of existing weak structures

In addition, respondents also made several recommendations on how to improve **community participation levels**, including:

- Building capacity and awareness on specific community needs and resources and engaging in advocacy
- Linking Disaster Preparedness to Community Development
- Bringing clarity to the roles of various actors in Disaster Response Management



- Forming Disaster Management Committees and delegating authority to these Committees
- Promoting coordination and partnerships between communities, District Administration and the local Panchayati Raj Institutions (PRIs) at all levels of Disaster Management
- Encouraging the Armed Forces to contribute during disaster response

Along with discussing the above, respondents made several **institutional and policy suggestions** to improve preparedness and community participation:

- Creating an institutional mechanism where the community/stakeholders from all sections of society have an adequate participation
- Further strengthening of legal framework especially the District Disaster Management Authorities
- Preparing and giving responsibility for disaster management and mitigation to Gram Panchayat
- Mainstreaming risk management and vulnerability reduction activities in the development plans and enhancing capacities of elected government functionaries
- Expanding the portfolio and professionalizing of Fire Services to respond to multi-hazard situations
- Bringing in representation from the Corporate Sector to Central, State and District Disaster Management Committees

Finally, discussants noted **challenges** to promoting and implementing wide scale and effective community-based preparedness programmes. One issue is the lack of coordination between various actors and it was suggested that the State Disaster Management Authority could work on this. Another challenge is the limited amount of data on the psychological and social impact of disasters and advised more research and enquiry on the issue. Moreover, the concerns of vulnerable groups (i.e. the elderly, disabled), must be included in any disaster preparedness plan. Members suggested promoting inclusion would help address this.

Members concluded that while experience sharing would improve understanding and help in formulating appropriate strategies in future, there is a need for some institutional mechanism at the state level in line with NDMA to facilitate implementation of such strategies and actions. Additionally, with adequate and transparent governance from PRIs and Urban Local Bodies, DM needs to be integrated with other development project such as health, education, and infrastructure.



## Comparative Experiences

### Assam

**Community Led Relief and Response** (from [Abha Mishra](#), United Nations Development Programme (UNDP), New Delhi)

During the 2003 floods in the Dhemaji District, the local community participated in relief and response activities in the affected villages. Relief Kits consisting of a tarpaulin, hand pump, utensils and buckets were provided to individuals and communities. The kits are still made available for use during a disaster and during normal times. This initiative supported from the district administration and through effective community participation has ensured sustainable community preparedness.

### Gujarat

**Coordinated and Effective Community Response** (from [Rajesh Gopal](#), Gujarat State AIDS Control Society (GSACS), Ahmedabad)

During the Sabarmati Train Accident in Baroda and the floods in Surat, communities, government and local NGOs worked together complementing each under the facilitation framework laid out under the Gujarat Disaster Management Act. GSACS and its partners were actively involved in generating awareness on health and water related issues and AIIMS in New Delhi supported the medical response. The local community efforts resulted in an effective response to the different disasters. Read [more](#)

### Jammu and Kashmir

**'Umang' Initiative to Improve School Disaster Preparedness** (from [Rashmi Gangwar](#), Centre for Environment Education (CEE), Lucknow)

CEE is working towards Disaster Risk Reduction in schools. Open air school programmes popularly known as 'Umang' were held immediately after the earthquake in Uri and Tangdar with the objective of creating awareness about the science of earthquakes to mitigate the prevailing misconceptions and taboos in society. The focus of the campaign was to generate awareness on the basic do's and don'ts, school evacuation plans, how to identify disaster prone villages and develop contingency plans. Read [more](#)

### Karnataka

From [M. Maheswar Rao](#), Deputy Commissioner' Office, Government of Karnataka, Mangalore

#### **Community Preparedness Efforts in Dakshina Kannada District**

The District Administration, community and local NGOs started an initiative to



reduce the local communities' vulnerability to disasters. They carried out School Safety Programmes and introduced 'Disaster Risk Education' into the District's National Service Scheme Volunteers training programme. Additionally, with Nehru Yuva Kendra Sangathan, Home Guards and the Civil Defense the community conducted mock drills. These efforts led to increased preparedness within the communities. Read [more](#)

### **School Awareness and Safety Programme**

The District Administration initiated a School Awareness and Safety Programme in association with the Fire and Emergency Services, the Home Guards and Civil Defence, the Department of Public Instructions and the Department of Health. Under this, School Development Committees were formed and involved in disaster management programmes, which connected the Committees to the Sarva Siksha Abhayan (SSA) Resource Centres. The programme prepared the schoolchildren and teachers to handle future disasters.

### **Training National Service Scheme Volunteers in DRM**

In order to prepare the National Service Scheme Volunteers in the District of Dakshina Kannada to effectively manage emergencies, the District Administration introduced Disaster Risk Education into all of their training programmes. The volunteers were sensitized on disaster risk management issues and required to initiate to the process of sensitizing and motivating their communities to form Disaster Management Teams. Read [more](#)

### **Orissa**

**Faith Based Groups Join Hands to Rescue** (from [Pradeep Kumar Jena](#), United Nations Development Programme (UNDP), Bhubaneswar)

During the Orissa Super Cyclone relief operation, 149 different Puja, Madrasas and Church Committees in Cuttack with support from the District Administration came forward to help in the rescue efforts. These groups knew the area and people (more intimately than Administration), and were able to do a splendid relief management job. Everyone, including the underprivileged received access to relief support, because of effective coordination among the various actors.

From [Kalika Mohapatra](#), United Nations Development Programme (UNDP), Bhubaneswar

### **Trained Villagers Able Survive Flooding**

The villages in Rayagada district participated in the GoI-UNDP Disaster Risk Management Programme. Most of the villages had received training in disaster management (DM), on First Aid, search and rescue techniques, shelter management, and counseling and damage assessment. Based on the trainings, the villages had DM teams and plans in place. During the July 2006 floods, the DM



Team were able immediately evacuated the affected people and provide them shelter in a safe location. Read [more](#)

### **Drought Mitigation Efforts Improve Village "Greenery"**

In order to mitigate the drought in the poor village of Palsipani in Nuapada district, the community came forward under the GoI-UNDP Disaster Risk Management Programme to prepare a community-based disaster management plan. As part of the initiative, the villagers formed teams to support drought mitigation efforts and identified locations for constructing water-harvesting structures. This community-based initiative resulted in bringing "greenery" back to the village. Read [more](#)

### **Maharashtra**

#### **Rale Gaon Sidhi Experiment in Community-Based Water Management** (from [Santosh Kumar](#), National Institution for Disaster Management (NIDM), New Delhi)

Ralegaon, located in the drought prone district of Ahmednagar, was facing recurring droughts for many years leading to soil erosion and scarcity of water. Under the leadership of Anna Hazare community-based water management was initiated, which resulted in the community's drinking water needs being met. After addressing this problem, the community started working to mitigate the affects of the drought and eradicate rural poverty through an integrated approach to development.

### **Tamil Nadu**

#### **'When Disaster Strikes'- Disaster Preparedness Saves Lives in Samiyarpettai Village** (from [Kalika Mohapatra](#), United Nations Development Programme (UNDP), Bhubaneswar)

Samiyarpettai was a 'model' village identified in Tamil Nadu under the Government of IndiaUNDP National Disaster Risk Management Programme where community based training approaches were piloted. The village disaster management plans were made, task force formed and trained. After the 2004 Tsunami, this village reported fewer deaths due to the training the community received on rescue and evacuation, survival skills, safety techniques, first aid, etc. Read [more](#)

### **Uttar Pradesh**

#### **City of Babrala Carries out Community Based Disaster Preparedness Activities** (from [Amit Tuteja](#), Tata Chemicals Ltd., Uttar Pradesh)

In the district of Barbal, a chemical company and the local community are carrying out Community Based Disaster Preparedness. They did assessment surveys, identified hazards and analyzed the data, and based on this designed disaster preparedness and mitigation activities to address various audiences. The initiative also prepared sensitization programmes for schoolchildren, community residents



and women and trained the community to respond to disasters through “disaster” situation mock drills.

**“Chipko Andolan” Community Movement to Prevent Deforestation**  
(from [Santosh Kumar](#), National Institution for Disaster Management (NIDM), New Delhi)

The Chipko Andolan, supported by Dasoli Gram Swarajya Sangh organized a community movement to prevent the destruction of local forests, in order to mitigate flooding. To stop the process of deforestation, local women formed a circle around trees to prevent contractors from cutting them down. The movement has spread to several districts in the state and averted massive deforestation.

## Multiple States

**Reducing Disaster Risk through Community Preparedness Measures**  
(from [Gyana Ranjan Das](#), [Deepa Prasad](#) and [Pradeep Kumar Jena](#), United Nations Development Programme (UNDP), Bhubaneswar and [M. Maheswar Rao](#), Deputy Commissioner' Office, Government of Karnataka, Mangalore)

The GoI-UNDP Disaster Risk Management Programme, works to reduce vulnerabilities of communities at risk to natural disasters in 169 multi-hazard prone districts in 17 states. Under the programme, a series of measures have been taken up at the community, local government and other levels to create a culture of disaster preparedness and risk reduction. This has resulted in increased community preparedness and disaster mitigation activities across the project states. Read [more](#)

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## Related Resources

### Recommended Documentation

**Gujarat Disaster Management Act** (from [Rajesh Gopal](#), Gujarat State AIDS Control Society, Ahmedabad)

Government of Gujarat; 2003

<http://www.gsdma.org/dmact.pdf> (Size: 135 KB)

*Act lays down guidelines for administering, facilitating, coordinating and monitoring disaster management activities before during and after a disaster in the state of Gujarat*

**Environmental Atlas of India** (from [Ramesha Gowda](#), Karnataka State Pollution Control Board, Bangalore)



## Central Pollution Control Board

<http://envfor.nic.in/cpcb/zoning/chap21b.html>

*It is a compilation of all the environmentally related information presented in the form of maps and text, which can be used to design disaster preparedness and mitigation programmes.*

## **Health, Disability and Donor Response** (from [Ashok Hans](#) Shanta Memorial Rehabilitation Centre, Bhubaneswar)

By Santhosh Rath; Shanta Memorial Rehabilitation Centre; October 30, 2006

[http://www.globalforumhealth.org/filesupld/forum10/F10\\_finaldocuments/papers/Rath\\_Santosh.pdf](http://www.globalforumhealth.org/filesupld/forum10/F10_finaldocuments/papers/Rath_Santosh.pdf) (Size: 173 KB)

*Paper examines the degree to which disability was included in the response efforts following the 2004 Tsunami and outlines suggestions to improve the inclusion of disabled in disaster response*

From [Sanjiv Lewin](#), St. John's Medical College Hospital, Bangalore

## **Disaster Management-A Reader**

Edited by S. Rajagopal and S. K. Chari; National Institute of Advanced Studies, Indian Institute of Science Campus, Bangalore (paid publication)

To avail of a copy contact the National Institute of Advanced Studies [niasoff@nias.iisc.ernet.in](mailto:niasoff@nias.iisc.ernet.in) or Tel.: 91-80-22185000

*Book outlines Disaster Management related issues in India, dealing with basic concepts of Disaster Preparedness and Mitigation.*

## **The Great Indian Ocean Tsunami of 2004: An Overview of a National Disaster**

By Sangeeta Menon; National Institute of Advanced Studies, Indian Institute of Science Campus, Bangalore (paid publication)

To avail of a copy contact the National Institute of Advanced Studies [niasoff@nias.iisc.ernet.in](mailto:niasoff@nias.iisc.ernet.in) or Tel.: 91-80-22185000

*Book gives an overview of the Indian Ocean Tsunami of 2004 and discusses the disaster's impact on communities and the science of tsunamis.*

## **Health and Psychosocial Consequences of Disasters A Bangalore Response**

By S. Rajagopa, S. Lewin and S. K. Chari; National Institute of Advanced Studies, Indian Institute of Science Campus, Bangalore (paid publication)

To avail of a copy contact the National Institute of Advanced Studies [niasoff@nias.iisc.ernet.in](mailto:niasoff@nias.iisc.ernet.in) or Tel.: 91-80-22185000



*Book provides an overview of health and psychosocial consequences of disasters.*

**Disaster Mental Health Management** (from [Suresh Bada Math](#), National Institute of Mental Health and Neuro Sciences, Bangalore)

By Suresh Bada Math; National Institute of Mental Health and Neuro Sciences (NIMHANS)

[Http://www.solutionexchange-un.net.in/drm/cr/res26040701.pdf](http://www.solutionexchange-un.net.in/drm/cr/res26040701.pdf) (Size: 181 KB)

*Experiential account of the Indian Ocean Tsunami giving an overview of the disaster, affect communities and outlines the work done by NIHANS in the Andaman and Nicobar Islands*

**Earthquake Emergency Survival Guide** (from [Ravinder Nath Goswami](#), Indian Mountaineering Foundation, New Delhi)

National Disaster Management Division, Ministry of Home Affairs

<http://www.ndmindia.nic.in/Pocket%20Guide.jpg> (Size: 153 KB)

*Education/information preparedness package for communities on do's and don'ts for earthquake survival including recommendations on emergency supplies and utilities needed during an earthquake*

From [Kalika Mohapatra](#), United Nations Development Programme (UNDP), Bhubaneswar

**Waves of Change - A Tsunami Relief Story**

United Nations Development Programme (UNDP); 17.55 minutes; 2006

[http://www.undp.org.in/index.php?option=com\\_content&task=view&id=90&Itemid=168](http://www.undp.org.in/index.php?option=com_content&task=view&id=90&Itemid=168)

*Film documents achievements of UN/GoI efforts to rehabilitate and build back better-to change homes, livelihoods, infrastructure & lives for the better, including community preparedness planning*

**When Disaster Strikes: The Story of Samiyarpettai**

United Nations Development Programme (UNDP); 15 minutes; 2005

[http://www.undp.org.in/index.php?option=com\\_content&task=view&id=90&Itemid=168](http://www.undp.org.in/index.php?option=com_content&task=view&id=90&Itemid=168)

*Film shot a few months after 2004 Tsunami, based on community-based training approaches piloted in a "model" village identified under GoIUNDP National Disaster Risk Management Programme*

**Community Based Disaster Preparedness**

United Nations Development Programme (UNDP); 2003

*Film documents the most important means for disaster response,*



management and risk reduction, and based on this a community based disaster preparedness pilot programme was initiated in Orissa

**Coping with Tsunami: An Exploratory Study on Disabled Persons in Tamil Nadu with Special Reference to Women with Disability** (from [Rama Kashyap](#), United Nations Development Programme (UNDP), Chennai)

United Nations; May 2007- under compilation

<http://www.un.org.in/untrs/>

*Study suggests intervention models for all Public Works Departments (both pre and post 2004 Tsunami) for all the phases of disaster management with special emphasis on women and children.*

**The Disaster Management Act 2005** (from [Arun Sahdeo](#), National Institute of Disaster Management (NIDM), New Delhi)

Ministry of Home Affairs, Government of India, New Delhi; 2005

[http://www.nidm.net/DM\\_act2005.pdf](http://www.nidm.net/DM_act2005.pdf) (Size: 1.67 MB)

*The Act covers the whole country and address the issue of management of disasters and plans for disaster preparedness.*

**Community Based Disaster Preparedness: Of the Community, By the Community and For the Community** (from [Sampurnananda Mahapatra](#), United Nations Development Programme (UNDP), New Delhi)

By Sampurnananda Mahapatra; United Nations Development Programme (UNDP)

<http://www.solutionexchange-un.net.in/drm/cr/res08050701.pdf> (Size:1.04 MB)

*Brief on promoting volunteerism through institutional linkages between communities and local administrations to convert the mission of Community Based Disaster Preparedness into a "movement"*

**Government of India-UNDP Disaster Risk Management Programme: Community Based Disaster Reduction and Recovery through Participation of Communities and Local Self-Government: Disaster Risk Management Project Document** (from [Gyana Ranjan Das](#); [Ikbāl Hussain Lascar](#); [Deepa Prasad](#), [response 1](#); [Pradeep Kumar Jena](#),; [Abha Mishra](#),; [Rama Kashyap](#),; and [Sampurnananda Mahaparta](#))

Natural Disaster Management Division, Ministry of Home Affairs, Government of India and United Nations Development Programme (UNDP), New Delhi; 2002

<http://data.undp.org.in/dmweb/pro-doc/ProgDocV2.0.pdf> (Size: 93.8 KB)



*Outlines the project strategy, goals and objectives, activities and the results framework of the UNDP-GOI disaster risk mitigation programme*

**State Disaster Management Plan** (from [Nupur Arora](#), Research Associate)

Relief and Rehabilitation, Division of Revenue and Forests Department, Government of Maharashtra

<http://mdmu.maharashtra.gov.in/pages/State/statedmpShow.php#actionplan>

*Plan outlines the institutional arrangements- roles and responsibilities of the various government agencies and links disaster management to their other activities*

**Recommended Organizations**

**U.S. Agency for International Development (USAID), New Delhi** (from [Ramesh Jain](#))

American Center 245, K.G. Marg New Delhi 110001; Tel: 011-23316841; [http://www.usaid.gov/in/our\\_work/program\\_areas/disaster\\_management.htm](http://www.usaid.gov/in/our_work/program_areas/disaster_management.htm)

*Works towards disaster prevention and disaster response planning to reduce India's vulnerability to disaster and focuses on capacity building of the communities at risk*

From [Rajesh Gopal](#), Gujarat State AIDS Control Society (GSACS), Ahmedabad

**Gujarat State Aids Control Society (GSACS), Ahmedabad**

0/1 Block, New Mental Hospital, Complex, Menghani Nagar, Ahmedabad 380016 Gujarat; Tel: 079-22681043/4992; Fax: 079-2680214; [gsacs@icenet.net](mailto:gsacs@icenet.net)

*GSACS is one of the State AIDS Cells, working to reduce the impact of HIV in the region, as part of their work contributed to disaster response in Gujarat following the 2001 Earthquake*

**All India Institute of Medical Sciences (AIIMS), New Delhi**

Ansari Nagar, in front of Safdarjung Hospital at the crossing of Ring Road and Aurobindo Marg, New Delhi; Tel: 91-11-26588500/799; Fax: 91-11-26588663/41; <http://www.aiims.edu>

*Responded to medical emergencies during to disaster relief efforts for the 2001 Gujarat Earthquake*

**National Service Scheme, New Delhi** (from [M. Maheswar Rao](#), Deputy Commissioner' Office, Government of Karnataka, Mangalore and [Abha Mishra](#), United Nations Development Programme, New Delhi)

Ministry of Youth Affairs and Sports, 501, B-Wing, Shastri Bhawan, Dr. Rajendra



Prasad Road, New Delhi 110001; Tel. : 91-11-23383292; Fax:: 91-11-23071193;  
<http://yas.nic.in/yasroot/schemes/nss.htm>

*Youth service programme aims at arousing social consciousness among youth and carrying out development activities including disaster mitigation and preparedness.*

*From M. Maheswar Rao, Deputy Commissioner' Office, Government of Karnataka, Mangalore*

### **National Institute of Technology, Karnataka**

Surathkal, Srinivasnagar PO, Dakshina Kannada District, Karnataka 575025; Tel: 0824-2474000-006; Fax: 0824-2474033; <http://www.nitk.ac.in/>

*Provides technical education at Undergraduate, Postgraduate and Doctoral levels and plan to integrate disaster risk education in their curriculum*

### **Mangalore University, Karnataka**

Mangalagangothri, Dakshina Kannada District, Karnataka 575025; Tel:91-824-2287276/347; [info@mangaloreuniversity.ac.in](mailto:info@mangaloreuniversity.ac.in); <http://www.mangaloreuniversity.ac.in/>

*Imparting education in the field of arts, commerce and management, science, engineering, law and education, plan to include disaster management in their curriculum*

### **Indian Jaycees, Mumbai**

Ami Kalash, Ami Complex, 2nd Floor, I C Colony Road, Borivali (W), Mumbai 400103 Maharashtra; Tel: 022-28913355/2354; Fax: 022-2891080; [aread@ijc.org.in](mailto:aread@ijc.org.in)

*Voluntary organization fosters youth to develop leadership skills, social responsibility etc and thus encourages participation for relief and rescue operations during disasters.*

### **Rotary International, United States**

One Rotary Center, 1560 Sherman Ave., Evanston, IL 60201, USA; <http://www.rotary.org/membership/>

*Worldwide organization of business and professional leaders that provides humanitarian service encourages high ethical standards in all vocations, and helps build goodwill and peace in the world.*

### **World Vision, Chennai (from Franklin Joseph)**

16, V.O.C. Main Road Kodambakkam Chennai, Tamil Nadu Tel: 91-044-24807070; [indiasponsors@wvi.org](mailto:indiasponsors@wvi.org); <http://www.worldvisionindia.org/cescripts/homepage.Php>



*International NGO carries out Community Based Disaster Preparedness Program, trains communities and volunteers in disaster preparedness and response, and undertakes disaster mitigation programs.*

**Shanta Memorial Rehabilitation Centre (SMRC), Bhubaneswar** (from *Ashok Hans*)

P-II Jaydeva Vihar 751023, Bhubaneswar Orissa; [smrc\\_bbsr@rediffmail.com](mailto:smrc_bbsr@rediffmail.com); [www.smrcorissa.org](http://www.smrcorissa.org)

*NGO working in the field of disability in disaster relief for the last two decades; have worked to be the "voice of disabled" and are carrying out various projects to help the disabled prepare for disasters*

From *Sanjiv Lewin*, St. John's Medical College Hospital, Bangalore

**St. John's Medical College Hospital, Bangalore**

Johnnagar, Bangalore 560034 Karnataka

*Disaster Relief and Training Unit has been responding to disasters in the Indian Peninsula since the early 1970s. They are also active carrying out preparedness and development activities in the area*

**Tata Institute of Social Sciences (TISS), Mumbai**

P.O. Box 8313, Deonar, Mumbai 400088 Maharashtra; Tel: 91-22-2556 3289; [webmaster@tiss.edu](mailto:webmaster@tiss.edu); <http://www.tiss.edu/>

*TISS works for social work education and social research in India, also reaches does relief and response during emergencies*

**National Institute of Advanced Studies, Bangalore**

Indian Institute of Science Campus, Bangalore 560012 Karnataka; Tel: 91-80-22185000; [niasoff@nias.iisc.ernet.in](mailto:niasoff@nias.iisc.ernet.in); <http://www.iisc.ernet.in/nias/>

*Institution conducts advanced research in multidisciplinary areas including science and technology, social issues and leadership and offering higher learning in Natural and Social Sciences.*

**National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore** (from *Sanjiv Lewin*, St. John's Medical College Hospital, Bangalore and *Suresh Bada Math*)

Hosur Road, Bangalore 560029 Karnataka; <http://www.nimhans.kar.nic.in/>

*Institute carries out programmes in areas of biological, behavioral and basic sciences, was involved in the 2004 Tsunami relief efforts working with communities in the Andaman and Nicobar Islands*

**Nehru Yuva Kendra Sangathan (NYKS), New Delhi** (from *Abha Mishra*,



United Nations Development Programme (UNDP), New Delhi)

Ministry of Youth Affairs and Sports, Government of India, East Plaza, Indira Gandhi Indoor Stadium, New Delhi 110002; [www.nyks.org](http://www.nyks.org)

*Forms Youth Clubs and involve the youth in nation building activities by developing their values and skills and carries out development programmes in priority sectors like disaster management.*

**Rural Litigation and Entitlement Kendra (RLEK), Dehradun** (from [Avdhash Kaushal](#))

68/1, Suryalok Colony, Rajpur Road, P.O Box No. 10, Dehradun 248001 Uttarakhand; Tel: 91-135-2746071/5539; <http://www.rlek.org/>

*Works on issues of gender equity in governance, legal literacy, disaster preparedness, education and health in Uttarakhand and thus plays a pro-active role in human rights and environmental protection.*

**Centre for Environment Education Himalaya (CEE), Ahmedabad** (from [Rashmi Gangwar](#), Centre for Environment Education, Lucknow)

Thaltej Tekra, Ahmedabad 380054 Gujarat; Tel: 91-79-26858002; Fax: 91-79-26858010; [ceehimalaya@ceeindia.org](mailto:ceehimalaya@ceeindia.org); <http://www.ceehimalaya.org/>

*Strengthens environmental education and communication interventions towards sustainable development and disaster preparedness in the mountain ecosystems of the Indian Himalayan region*

From [Santosh Kumar](#), National Institution for Disaster Management (NIDM), New Delhi

**Indian Federation for Red Cross and Crescent Societies (IFRC), India**

Red Cross Building 1 Red Cross Road, New Delhi 110001; Tel: 91-11- 371 64 24; [indcross@vsnl.com](mailto:indcross@vsnl.com); <http://www.ifrc.org/what/disasters/response/tsunamis/index.asp>

*Indian Red Cross programmes include promoting humanitarian principles and values, disaster response, disaster preparedness and healthcare in the community*

**Oxfam, United Kingdom**

Oxfam House, John Smith Drive, Cowley, Oxford OX4 2JY United Kingdom; <http://www.oxfam.org.uk/>

*International NGO works to overcoming poverty and also towards responding swiftly to provide aid, support and protection during natural disasters*



From [M. P. Sajnani](#), Asian Disaster Preparedness Centre (ADPC), New Delhi

### **National Disaster Management Authority (NDMA), New Delhi**

Centaur Hotel, Near IGI Airport, New Delhi 110037; [www.ndma.gov.in](http://www.ndma.gov.in)

*Develops a holistic, multi-disaster and technology-driven strategy for disaster management including preparedness at all levels through collective efforts of the Government and NGOs*

### **National Institute of Disaster Management (NIDM), New Delhi**

I. P. Estate, Ring Road, New Delhi 110002; Tel: 91-11-23702432/5583/23766146; Fax: 91-11-23702442/6; [institute.nidm@nidm.net](mailto:institute.nidm@nidm.net); <http://www.nidm.net/>

*Premier national organization working for human resource development at national level in the area of disaster mitigation and preparedness*

### **United Nations Tsunami Recovery Support, Chennai (from [Rama Kashyap](#))**

Apex Towers (opposite Kaliappah Hospital), 54, 2nd Main Road, R. A. Puram, Chennai 600028 Tamil Nadu; Tel: 91-44-42-303-551/2; Fax: 91-44-42-303-556; [info.untrs@undp.org](mailto:info.untrs@undp.org); <http://www.un.org.in/untrs/>

*Composed of seven UN-agencies- FAO, ILO, UNDP, UNESCO, UNFPA, UNICEF, and WHO facilitating Tsunami recovery efforts and supporting rehabilitation and community preparedness activities*

### **Government of India-UNDP Disaster Risk Management Programme, New Delhi (from [Gyana Ranjan Das](#); [Ikbāl Hussain Lascar](#); [Deepa Prasad](#), [response 1](#); [Pradeep Kumar Jena](#),; [Abha Mishra](#),; [Rama Kashyap](#),; and [Sampurnananda Mahaparta](#))**

55 Lodhi Estate, New Delhi 110003; Tel.: 46532333; 24627612; [http://www.undp.org.in/index.php?option=com\\_content&task=view&id=80&Itemid=163](http://www.undp.org.in/index.php?option=com_content&task=view&id=80&Itemid=163)

*Aims to reduce vulnerabilities of communities at risk to natural disasters in 169 multi-hazard prone districts spread over 17 States of India, using a community-based approach to disaster preparedness*

### **Recommended Portals and Information Bases**

**Crisis Prevention and Recovery, UNDP** (from [Gyana Ranjan Das](#), UNDP, Bhubaneswar; [Ikbāl Hussain Lascar](#), UNDP, Assam; [Deepa Prasad](#), UNDP, Bhubaneswar, [response 1](#); [Pradeep Kumar Jena](#), United Nations UNDP, Bhubaneswar; [Abha Mishra](#), UNDP, New Delhi; [Rama Kashyap](#),

UNDP, Chennai; and [Sampurnananda Mahaparta, UNDP, New Delhi](http://www.undp.org.in/index.php?option=com_content&task=view&id=21&Itemid=79)  
[http://www.undp.org.in/index.php?option=com\\_content&task=view&id=21&Itemid=79](http://www.undp.org.in/index.php?option=com_content&task=view&id=21&Itemid=79)

*Portal contains information, such as project documentation, fact sheets, links, on UNDP's work setting up an institutional framework for disaster preparedness, response, prevention and mitigation*

### **Related Past Consolidated Replies**

**National Disaster Management Act and Local Bodies, from V. R. Raghavan, Oxfam GB, Kolkata (Examples; Experiences).** (Size: 205 KB)  
Decentralization Community. Issued 26 March 2007

*Discusses engagement of local bodies in managing disasters, status of relevant state laws and directives to involve local bodies, and capacity building needs of PRIs in managing disasters*

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## **Responses in Full**

**[N. K. Agarwal](#), Geological Survey of India, Dehradun (response 1)**

To me Disaster Management means Damage Prevention and Reduction (DPR), Strategies with Zero response time and Zero casualty. These are the two main elements of Disaster Management, which go beyond Emergency Management. This is a universal truth, which applies true to all disasters, may it be landslides, earthquakes, floods, tsunami, cyclones, gas-leak, road-railway accidents etc.

I feel there is a need to change our present role of "relief and rescue" providers to damage "preventer" and "reducer".

Disasters strike in all parts of globe, but the damage and casualty in third world countries including India is always high due to non-compliance of safety norms or absence of required norms and standards. Therefore, strict compliance of safety regulations pertaining in all developmental plans, DPRs need to be followed ruthlessly. It should also be mandatory to upgrade all standards and norms may be every ten years to keep pace with advancement in technology and societal needs.

Further, in the damage assessment of any area, cost of human life and livestock need also to be considered to measure the magnitude of man made as well as natural disasters.

Also, Earth science has a major role to play in Damage Prevention and Reduction Strategies as part of Disaster Management, which needs to be stressed on.

All our preparedness is pivoted around post disaster management I.e. rescue and



relief and is not centered around pre-disaster management. Applied Geology can only fill up this gap and make the concept holistic.

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**Gyana Ranjan Das, United Nations Development Programme (UNDP), Bhubaneswar**

GoI-UNDP Disaster Risk Management Programme is being implemented in 17 states of India during 2002-2007. A series of measures have been taken up under this programme at community, local government and other levels to create a culture of disaster preparedness and risk reduction. This programme has also evolved strong mechanisms for networking among different stakeholders working the field of disaster preparedness.

The interventions of NDMA and the concerned state governments would be of immense help in carrying forward the programme and mainstreaming and institutionalizing the initiatives undertaken under the above programme.

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**Ikbal Hussain Iascar, United Nations Development Programme (UNDP), Assam**

It is wonderful to have such type of platform especially in Disaster management, which can enhance the practice in the community.

After opening of Disaster Management exchange platform, I do hope preparedness movement will accelerate in the country and it is a welcome step so that Disaster Risk Management (DRM) practioners can gather knowledge in disaster management. I wish all the best to the platform.

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**Ramesh Jain, American Embassy, New Delhi**

Kudos! Finally, we have a credible and wonderful platform for this issue.

I am a part of the HIV/AIDS Community at Solution Exchange and I learn a great deal from it too. With this email from General Vij, it shows how the people-gap has been filled by this wonderful bridge of the Solution Exchange.

I work with the Public Affairs Section of the U.S. Embassy in New Delhi and would like to mention that one of our missions' strategic goals is to provide Disaster Prevention/Response via Capacity Building. While there are bilateral projects ongoing, I would like to propose a national conference in 2008 which we are willing to co-fund perhaps with partners from UNDP, NDMA and alike. Disasters have happened over centuries but man is yet to effectively deal with its aftermath. With the advent of these new communication tools and sharing if, we do not plan and equip ourselves enough by being "Aware & Prepared" we as a community will

be doing a disservice to humanity. I think the central and core issues will be community participation and preparedness.

I look forward to comments and interactions with this community.

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**Deepa Prasad, United Nations Development Programme (UNDP), Bhubaneswar** *(response 1)*

Community Based Disaster Preparedness practices needs to be linked to the daily activities of the population and to their development issues and problems with tangible outputs. It should serve as forums for bringing the community together to address existing community problems and to establish the basis for the community taking responsibility for its own development and eventually leading to disaster resilience.

Several community based disaster preparedness programmes have been taken up in different parts of the globe with excellent outputs. But many of these good practices have been and would be short lived and confined to the project period unless they are linked to the development issues of a community.

Further, in communities that have not faced major disasters in the recent past, initiating interests within the community would be a great challenge. Here development programmes could serve as platforms to address disaster preparedness and community involvement.

The integral part of the GOI UNDP Disaster Risk Management Programme (implemented in 17 states) is Community Based Disaster Preparedness with formation of Disaster Preparedness Committees and Teams and development of Disaster Preparedness Plans. Evolution of the local development committee from the original disaster preparedness committee and their efforts to develop and implement local development plans offers the best opportunity for ensuring the continuation of disaster preparedness activities at the community level.

As the committee prepares and implements development plans, it can be foreseen that disaster preparedness will be an integral part of these plans. By inculcating this into the minds of the community, the disaster management committee gradually ceases to think of disaster preparedness as a stand-alone activity, but sees it as an important part of their daily life.

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**Rajesh Gopal, Gujarat State AIDS Control Society (GSACS), Ahmedabad** *(response 1)*

I am extremely delighted to see that the important deliberations are being initiated by a person none other than the Vice-Chairperson of the National Disaster Management Authority, Government of India.



As a lay person involved briefly with the Samlaya, Baroda train accident of Sabarmati Express in

2005 and for more than a month at Surat in the immediate post -floods period in Surat, I can confidently state that preparedness vis-à-vis proneness/vulnerability can go a very long way in mitigation of damages of all types of disasters including earthquakes and accidents.

It was a fully coordinated effort by the governmental organizations, local self-government, NGOs and Community Based Organisations (CBO) in a comprehensive manner ensuring complementing and supplementing of all activities, which brought about an effective response to the disaster

It was also an excellent example of mainstreaming of the interventions through different people and organizations which ensured that there were no major outbreaks of epidemics which were very likely in the scenario where there was no electricity, no piped water supply and the entire system and the life of the metropolis had come to a stand still for about four days with larger areas of the thickly populated city being inundated.

The community participated in a very big manner. The 25 odd NGOs and CBOs working for the Partnership for Sexual Health Projects for AIDS control with the Gujarat State AIDS Control Society (GSACS) were actively involved in the dissemination of the appropriate messages about safety of water, prevention of mosquito bites/vector borne diseases. These people included commercial sex workers, migrant people who ensured messaging in culturally appropriate manner in different dialects and languages using the folk media. They were part of the medical teams and worked hand in hand with the staff of the municipal corporation, charitable organizations in all the preventive and awareness activities.

The experiences and learning are enormous. In view of the equally, if not more, important activities needing priority on my personal and organizational time, I have been hindered from jotting down the experience which I feel must be documented. I will ensure the same in spite of the time constraints presuming it would be of some use to some one else in a similar scenario somewhere.

I would like to put on record the timely response of the senior faculty members from my Alma mater(AIIMS)who came over on a very small notice to review the various specialist medical and diagnostic interventions being carried out in the public and private sectors and re-affirmed the appropriateness of all the interventions thereby further motivating the medical fraternity in particular(specially the private doctors who were operating under myriad constraints and rumors about 'mysterious illness', outbreak of plague etc.)

All actions were actively facilitated under the Gujarat Disaster Management Act, which provides provisions for immediate action for different organizational

interventions for mobilizing support from all quarters including punitive action against the people adversely affecting the activities. All these were utilized for taking care of the errant and mischievous characters who indulged in profiteering at the cost of the health and life of the people (sale of spurious packaged water/mineral water).

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**M. Maheswar Rao, Deputy Commissioner' Office, Government of Karnataka, Mangalore**

On behalf of the District Administration, Dakshina Kannada, we would like to thank everybody involved in setting up this platform. As other Solutions Exchange Platforms, we believe this would help us in learning from each other's experiences and be able to improve the governments and community's preparedness and response mechanisms.

Coming to the question of improvement of preparedness and community participation levels for efficient management of disasters, we have been actively involving the community in all the interventions we have initiated until date. We would like to list of some of them and the manner in which the community participated actively:

- The School Awareness and Safety Programme conducted throughout the District. This was the initiative of the District Administration, Dakshina Kannada in association with the Fire and Emergency Services, the Home Guards and Civil Defence, the Department of Public Instructions and the Department of Health. In this programme, we made use of the School Development and Monitoring Committees and the Block Resource Centres of the Sarva Siksha Abhayana-the link between the Teachers, Students, the Parents and the Community to involve the community in all the disaster risk management programmes. The community took up the initiative in a positive manner and contributed to the generation of awareness on disaster risk issues at the local level by conducting sensitization programmes at their level. The local CBOs and NGOs such as the Jaycees and the Rotary Clubs and Youth Organisations actively participated and contributed to the success of the SASP in the district. This was supplemented and complemented by the Volunteers of the Civil Defence and Home Guards who being active members of their community have been a motivating factor and were the facilitators of the programmes. Both the Fire and Emergency Services and the Home Guards & Civil Defence chipped in with sensitizing the community in basics of search and rescue and first aid.
- The Civil Defence and Home Guards Volunteers in association with the Fire and Emergency Services Personnel are involved in constituting a Volunteer Based District Disaster Response Team to be headed by the District



Commandant, Home Guards & Civil Defence having as its core members the Regional Fire Officer and the District Fire Officer. It is proposed that this team will have approximately 30 members from the community, to begin with. Each member of the team, being in a position to muster another 10-15 members from the community, as volunteers, in case of need depending on the type of emergency or disaster.

- Intervention through tapping the National Service Scheme Volunteers in the District. In all their training programmes, they are being sensitized on disaster risk management issues and they in-turn are required to initiate the process of sensitizing and motivating the community to which they belong including formation of Disaster Management Teams.
- One other intervention is through the Nehru Yuva Kendra Sangathan. Their members, the Fire and Emergency Services and the Home Guards and Civil Defence are involved in generating awareness by speaking to the community and conducting mock drills at the community level.
- We have also initiated the Urban Community Programme within the limits of the Municipal Corporation of Mangalore City. In this programme we plan to make use of the CBO's at the ward level to sensitize the community and initiate their active participation. For this we have constituted a Ward Committee (Disaster Management) headed by the Corporator of the ward and an officer of the Municipal Corporation as the convener. On the completion of a Training of Trainers on Community Based Disaster Management for the conveners and some sensitization workshops for the corporations, we would be (Municipal Corporation) initiating the programme in all the wards of Mangalore City. In some of the wards where we have Anganwadis, it would be the Anganwadi, which would be the focal point for community preparedness.
- Other Initiatives targeting the professionals have been Training of Engineers and Architects in Earthquake Engineering. In this, we targeted the Professional Bodies of Engineers and Architects from the Institution of Engineers, Association of Civil Consulting Engineers and the Architects Guild along with Engineers of the PWD, Zilla Panchayat, Minor Irrigation and City Corporation of Mangalore. This was done in association and coordination with the National Institute of Technology Karnataka (NITK)

These are some of the initiatives started by the District Administration under the Urban Earthquake Vulnerability Project, a sub-component of the GoI-UNDP Disaster Risk Management Programme for enhancing community preparedness and participation. In all these initiatives, we have had considerable cooperation and participation from the community, which requires to be built up on in the coming months and years so that we have an aware and well-prepared community.

In our effort to integrate disaster risk management into different sectors, we have initiated dialogue with the National Institute of Karnataka (NITK) and the Mangalore University (It has two constituent colleges and 105 affiliated colleges in the three districts of Dakshina Kannada, Udupi and Kodagu) on the necessity for starting open electives in Disaster Risk Reduction and Sustainable Development (disaster preparedness, environment and ecosystem management, basics of first-aid, search and rescue etc.). We have also initiated discussions with the NITK to start a Centre for Disaster Risk Management in association with the District Administration that can supplement and complement the work of the District Administration by providing us with solutions on its core strengths like Cyclone and Earthquake Resistant Structures and designs, Coastal Erosion Prevention Methods, Vulnerability and Risk Analysis, Reducing disaster risk in Urban areas etc.

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**C. Baskaran, Community Consulting India Pvt. Ltd., Chennai**

I want to mention that a good methodology for the Disaster Management (as a Good Governance Practice) has been established by the Government agencies and NGOs in the aftermath of the Tsunami Disaster in India, especially in the state of Tamil Nadu. This platform will go a long way in sharing and showcasing such good practices of Disaster Management.

I wish all the best to this platform.

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**Farrukh Rahman Khan, Find Your Feet-India, Lucknow**

While experience sharing would strengthen our understanding and formulate appropriate strategies in future, there needs to have some institutional mechanism at the state level in line with NDMA to facilitate implementation of such strategies and actions for desired results. Lack of coordination amongst various stakeholders and agencies is one of the major challenges due to absence of such institution at the state level. It could be State Disaster Management Commission or State Disaster Management Authority with substantial autonomy and freedom to take actions.

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**Amit Kumar, Yashwantrao Chavan Academy of Development Administration (Yashada), Pune**

It is really wonderful and overwhelming participation cross the country. Let us resolve all burning issues related to DM.

I wish all the best to UNDP for such great initiatives

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## **Ghatit Laheru, Saline Area Vitalisation Enterprise (SAVE), Ahmedabad**

Community participation is crucial issue in disaster preparedness as in the any other developmental issues. There are few points that I would like to throw some light as answer of your question:

- Most of natural disasters like cyclone, earthquake are very spontaneous in nature and we cannot predict the time of their occurrence. This is the biggest issue that the disaster preparedness committees at village level are facing. They were formed soon after disaster and were given training but they don't know when they are able to put their knowledge into action. (We should pray that they don't get any such chance in near future.)
- The responses of any disaster are very much varied in nature. The response to a flood is different than the response to an earthquake. They also require different set of skills and training. So, there is not a single measure that really builds capacity of village level committees against every disaster.

However, every community has developed their own disaster management skills and measures against the frequently occurred disasters of their respective area. We can document them with community participation and widely disseminate to other organizations.

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## **Pradeep Kumar Jena, United Nations Development Programme (UNDP), Bhubaneswar**

It is a great initiative for bringing all of us to share our views, ideas and concern with one another and through that, to the initiative for a disaster resilient India.

When it comes to improving Community preparedness and community participation, the picture of Super Cyclone flashes before me. I, as the District Collector of Cuttack, faced the daunting task of organizing response operations in an un-prepared state. When the local Government authorities in the Cuttack City didn't rise to the occasion and people suffered in getting relief, good sense prevailed upon me and I took help of the 149 odd Puja Committees and Madrasa and Church Committees of Cuttack city with whom the District Magistrate works very closely in managing complex festival related law and order situations. These community committees know the area and people more intimately than the members of Administration. In fact, they did a splendid relief management job. It was flawless. People got access to relief without much problem and vulnerable sections got priority over others in getting food assistance. This prompted me to talk to other informal committees and to some extent, we were successful also. What worked for me in Cuttack was largely due to the mutual faith of the Communities and the District Administration in each other and clear cut role and responsibility given to them. A bit of flexibility in approach will also facilitate involvement.

During Flood-2001, and 2003 in Orissa when I have supervised relief operations in Puri and Cuttack district I found those villages where Administration and local Panchayats have worked closely with the community groups and the UNDP Disaster Risk Management (DRM) Programme, the participation and involvement have been better.

Better participation of the Community can be elicited by; Adequate Awareness about the Disasters; clarity of their roles in Disaster Response Management; and delegation of authority to the Committees. The formation of the Disaster Management Committees is very important and without adequate preparation and rapport building if committees are formed we may not get good response from the communities. The District Administration and the local Panchayati Raj Institutions and Blocks have to value the partnership with the Communities and demonstrate the same during all meetings and training programmes. That is our experience in GoI-UNDP DRM programme.

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**Franklin Joseph, World Vision, Chennai**

It is great to hear from General Vij regarding Improving Preparedness and Community Participation. I am looking forward to hear from you all about your experience. World Vision has taken efforts to prepare the disaster prone communities of our projects, through Community Based Disaster Preparedness Program We conduct vulnerability and capability analysis and train the community and volunteers in disaster preparedness and response and undertake disaster mitigation programs.

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**P. C. Joshi, Delhi University, New Delhi**

I am extremely delighted to be an active member of the group. My interest lies in understanding the social impacts of extreme events and especially looking at the disaster impact issue from the community point of view. I personally feel that while there has been very active interest and research input in the area of psychological impact assessment including mental health, the social impact (both short term and long term) has rather been a neglected area of enquiry.

We are studying the social impact of flood disaster in the context of Uttar Pradesh and planning to undertake the micro study of a district and would investigate the social consequences. In our impact model, we have included the subcategories of socio-demographic, socio-economic, social structural, socio-political and socio-psychological. The main endeavor of my team is to collect evidence and standardize tool for the social impact assessment.



## **Ramesha Gowda, Karnataka State Pollution Control Board, Bangalore**

Currently I am involved in State Environmental Atlas of Karnataka. As part of activity, we want to prepare disaster prone areas of Karnataka but unable to get quality data of flood, draught, earthquake, cyclone hit villages. Possibly complete data of such information will be lot of importance to an entrepreneur to select site for his industry and he will be ready to buy such data. Every year state and centre do declare some villages as disaster affected, but information is not available easily. If such information is made available, it would be of great value for decision-making.

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## **Ashok Hans, Shanta Memorial Rehabilitation Centre (SMRC), Bhubaneswar**

First of all congratulations to Solution Exchange for bringing about a much needed discussion platform!

I have been working in the field of disaster since 1999 (Orissa Cyclone) and since then trying to include the issue of disability in disasters. From our experiences in recent disasters, we have come to realize that they affect most the vulnerable of groups in the community i.e. women, children, elderly and the disabled. Shanta Memorial Rehabilitation Centre (SMRC) has been working on inclusion of disabled in disaster response. It is important to note at the beginning that the approach is not narrow confined to how disasters affect disabled but disasters have an impact on disability, by disproportionately affecting persons with existing disabilities and generating disabilities in people who did not have disability earlier.

In regions of the world where poverty is already an issue and disabled rarely access available resources even in normal times, the issue attains more criticality. Health for instance being one of the major impeding factors during a disaster is difficult to address in poor developing regions of the world as disasters demand emergency services on a large scale. The inability of most of these countries to cope is not only an issue related to lack of finances but also of trained manpower. Some countries have crossed these hurdles for instance Bangladesh has a system in place, but even here the disabled have been left out though attempts are being made for their inclusion. It has come to be universally recognized that under emergencies disability rights are ignored, as they are invisible as a group with very little voice.

SMRC has initiated an international campaign for inclusion of disability in disasters and has been involved in getting it on many agenda's and platforms but there is still a long way to go. Our major problem in this regard is the non-availability of data. Some of the problems faced during the tsunami were:

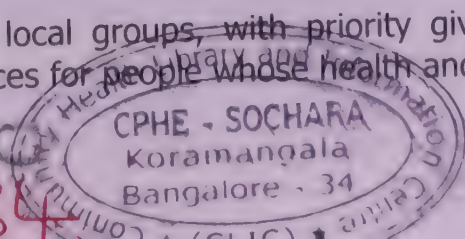
- It was difficult to know the exact number of people with disabilities, who were injured or killed by Tsunami
- No statistics were available on the number of people who would have a permanent disability as a result of the Tsunami;
- Disabled people were not included in existing emergency plans in these countries.
- Disabled people were also excluded from the co-ordination meeting that took place among the international NGOs relief agencies and Government officials

We feel there is a need to address issues at two levels; 1) Issues specific to disasters and 2) Issues related to the structural changes required to reduce disability among people living with impairments of any kind including in disaster regions. In this context, we need to promote the inclusion and active involvement of disabled persons in the governance of general health and emergency/conflict response and create a system whereby collaboration between key stakeholders (Governments, UN, donors, NGOs etc) actively considers disability issues during disasters to assure the health, safety and other human rights of disabled people. This would mean providing a set of policy guidelines or principles to stakeholders in the region (Governments, NGOs, etc.) to follow during disasters, which would include among others measures, to:

- Ensure that warning systems are disability-friendly, i.e. meet universal design principles.
- Ensure that disability organizations are actively involved with disaster relief organizations and governments in the overall governance of response coordination offices during disasters.
- Ensure that relief workers understand and are sensitive to disability issues in working with people.
- Ensure that universal design principles are met in facilities housing services for disaster relief to ensure that they are disability-friendly and accessible for the many more people becoming impaired during disasters and for disabled people already living in disaster-affected countries.
- Medical and epidemiological monitoring of internally displaced people, including elaboration of a data base of people directly affected by the disaster due to respiratory infection, wounds and injuries resulting in impairment, and of disabled people whose health and well-being may be put at risk during and post disaster.
- Support to medical services and to local groups, with priority given to ensuring access to supports and services for people whose health and well-

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being is particularly at risk during these times (disabled people, pregnant women, very young and very old people, orphans).

Create a "level playing field" by providing funding for the active participation of members of the disability community in governance, including for attendance at meetings and policy making initiatives at all levels, to ensure that their right to participate is not violated.

In a recent review of funding of disasters, we found that many agencies have agreed to include disability but provide no funding for their needs.

For more information you may read the paper; Health, Disability and Donor Response, by Santosh Rath, SMRC [here](#) or visit [www.smracorissa.org](http://www.smracorissa.org)

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### **Sanjiv Lewin, St. John's Medical College Hospital, Bangalore**

Please find below my comments on the query:

#### **The Role of the Armed Forces:**

The armed forces are equipped with resources including infrastructure, transport, communication & trained human resources, capable of an effective, efficient and immediate response to any disaster. However, with the armed forces already playing multiple domestic roles and over stretched already, this role isn't necessarily one that is welcome routinely. In a developing resource constraint setting such as ours, we could make a case for its role in disaster response. Remember that only the services actually have an active manual for a coordinated response.

Medical Disaster Team (Indian) Experiences: With experiences in disaster responses since the 1971 Refugee camps to work on the Nicobar Islands following the 2004, the institutes that come to mind are the St. John's Medical College's Disaster Relief and Training Unit the National Institute of Mental Health and Neurosciences (NIMHANS) in Bangalore and Tata Institute of Social Sciences (TISS) in Bombay. Activities including comprehensive aspects of Disaster Management are reasonably documented in the National Institute of Advanced Studies' (NIAS) publications, which are listed below:

- Disaster Management-A Reader. Eds: Rajagopal S, Chari SK. National Institute of Advanced Studies, Bangalore 2001 and repeat 2003.
- The Great South Asia Tsunami 2003. Eds: Menon S. National Institute of Advanced Studies, Bangalore, 2006. The NIAS also runs a biyearly course for the Indian Administrative Services (IAS) on Disaster Management.

#### **Rehabilitation versus Relief:**

Rehabilitation is usually never our strong point compared with Relief. This issue is extremely relevant and needs to be focused upon.

### **Vaccinations in post Disaster Scenarios:**

There is a strong need for resource mobilization to vaccinate post-tsunami victims. Experiences have however shown that mass vaccination programs are counterproductive and divert limited resources from other critical tasks of relief and medical response. Areas affected have inadequate safe drinking water, poor refrigeration facilities and over-burdened health care workers. Clinical and epidemiological profiles should determine needs. Crowded relief camps and contaminated drinking water are substrates for the spread of communicable diseases after natural disasters. Surveillance has documented acute respiratory infections, skin lesions and injuries, especially among children, as being common problems. Similar surveillance should determine future needs. Epidemics are seen after natural disasters and have been reported predominately from areas with high population densities, poor sanitation, inadequate safe-drinking water or poor basic health especially poor vaccine coverage. These along with surveillance should decide vaccination needs for the costs of mass vaccination exercises (logistics - transportation, delivery, and safety) can be better utilized in the post disaster scenario. It is said that few physicians are familiar with principles and unique demands of disaster medicine

### **Some resources, which I want to recommend, are:**

- Disaster Management-A Reader. Eds: Rajagopal S, Chari SK. National Institute of Advanced Studies, Bangalore 2001 and repeat 2003.
- Lewin S. Health and Psychosocial Consequences of Disasters A Bangalore Response. In: Rajagopal S, Chari SK (eds) Disaster Management A Reader. Bangalore National Institute of Advanced Studies, 2003:161-170.
- The Great South Asia Tsunami 2003. Eds: Menon S. National Institute of Advanced Studies, Bangalore, 2006.

These three references are good reading giving an overview of various areas of Disaster Management and is the reference material based on Indian work used during the NAIS Disaster Management Training for the senior level IAS Officers held biyearly in Bangalore. Contacting the National Institute of Advanced Studies on the Indian Institute of Science Campus in Bangalore could get one copies.

Apart from the above, I want to recommend:

- Drazen JM, Klemperer MS. Disaster, Water, Cholera, Vaccines, and Hope. N Engl J Med 2005; 352:827.
- Noji EK. Natural Disasters. Critical Care Clinics 1991; 7(2):271-292.



- Van Rooyen M, Leaning J. After the tsunami Facing the Public Health Challenges. N Engl J Med 2005; 352:435-438.
- Rottman SJ. Book review: Disaster Medicine. N Engl J Med 2003;349:199-201

These four references are primarily health references that are available at the National Library of Medicine NLM web site in any medical library. They are predominately are Disaster Medicine references.

**Suresh Bada Math, National Institute of Mental Health and Neuro Sciences (NIMHNS), Bangalore**

I am extremely happy to see the responses from various fraternities and experts on disaster management and wish to draw light on the issue in terms of mental health professional and his role in disaster. I was involved in disaster management during tsunami at Andaman and Nicobar.

Please find attached here an experiential note written by my on Disaster, which was submitted to Government of India and has been published in International Review of Psychiatry.

To read the paper click <http://www.solutionexchangeun.net.in/drm/cr/res26040701.pdf>

**Rajesh Gopal, Gujarat State Aids Control Society (GSACS), Ahmedabad (response 2)**

It is a pleasure to go through the appropriate and extremely valid comments from members about the need for integration and complete incorporation of the disaster preparedness in the daily chores of the people and in the development activities of the community. It can never be a stand alone activity and has to be mainstreamed.

The forum would be benefited a lot by the sharing of and learning from the UNDP's Disaster Risk Management Programme (implemented in 17 states) and the processes and modalities of formation of Disaster Preparedness Committees, the teams and development of Disaster Preparedness Plans.

**Deepa Prasad, United Nations Development Programme (UNDP), Bhubaneswar (response 2)**

Following my earlier response, to read more on the UNDP's Disaster Risk Management Programme, please visit the following link:

[http://www.undp.org.in/index.php?option=com\\_content&task=view&id=21&Itemid=79](http://www.undp.org.in/index.php?option=com_content&task=view&id=21&Itemid=79)

The site provides the programme details, manuals, guidelines, publications, documentaries and other resources and would give a comprehensive idea of the programme.

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**S. Janakarajan, Madras Institute of Development Studies (MIDS), Chennai**

I want to bring forward here the issue of Coastal disasters and their increasing threats to people's livelihoods who live along coasts. Vulnerability of coastal population due coastal hazards and disasters such as cyclones, storms, seawater encroaching land, tsunami etc further aggravates due to anthropogenic factors. Increasingly sea has become a dumping yard for effluent from industries. Therefore, threats to coastal people have become more acute. This has a direct impact on coastal environment and livelihoods of millions of traditional fishing population as well as agricultural population. Besides, coastal wetlands are also under very serious threat. Also the population most vulnerable to extreme events and long-term change already belongs to weak economic and social groups.

Therefore, in order to improve preparedness there is a need carry out more scientific assessments and researches to investigate into issues such as adaptations of coastal communities to coastal disasters of all kinds, changes in patterns of livelihood (diversification, migration, commuting, the development of non-coast based livelihoods) and ability or (or lack of it) of the coastal communities for adaptations to extreme coastal disasters and environmental management. Further, it is necessary to examine extent of damage already done to coastal wetlands and coastal aquifers, impact of urbanization, tourism and vast growth of industries on coastal ecology and environment besides climate change impacts. Both the Central and the State governments should work for reducing vulnerability of coastal ecologies. All these issues gain enormous significance in the context of climate change.

I hope something very useful emerges from this forum.

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**Ravinder Nath Goswami, Indian Mountaineering Foundation, New Delhi**

It is indeed very thoughtful of Solution Exchange network and National Disaster Management Authority to have taken such an important topic up for deliberations.

Disaster is sudden calamity/catastrophe. We have to identify risks and plan for the conditions like floods, earthquakes, hurricanes, tsunami, epidemics, fires and forest fires, etc.

We with our advance planning, can certainly reduce the risk factor This involves



planning which includes allocating responsibility, listing of available stores and resources, involving volunteer organizations, checking of availability of the basic emergency supplies and equipment., Co-ordination among various agencies/actors, Good reliable communication system, Advance warning system where possible.

The Disaster Management Plans must be prepared in advance, taking into consideration, geographical features like coastal area or river or mountain area or heavily congested constructed areas. It will guide us for the type of equipment and stores required. The plan should be simple, comprehensive and in the language which locals can understand. This should be worked out in details and involve civil administration, army, police, NGOs home guards ,civil defense, and local volunteers ,organizations who can actively contribute for improving situation. Plan should be able to provide medical assistance and salvage whatever is possible.

Awareness Generation on safety measure for community should be done- e.g. Earthquake safety tips, by National Disaster Management Authority comes out as an educative, informative package for common man. They are to the point, regularly coming in newspapers. The points mentioned are:

**When Earthquake Happens:**

If you are inside a weak structure leave the building through safest and fastest way out with hands on your head, do not use elevators. Use the staircase; do not panic. Stay calm.

If you are in structurally safe building stand next to corners of the rooms, drop to the floor, take cover under sturdy table, do not panic, and stay calm.

if you are outside move away from power lines, lamp posts, walls and other objects that may collapse and fall, If you are driving, pull over to open area. Do not block the road; do not attempt to cross bridges and flyovers.

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**Abha Mishra, United Nations Development Programme (UNDP), New Delhi**

I feel that to improve the Preparedness and Community Level Participation we need to:

- Create more awareness about not only the hazards but also about the basic do's and don't,
- Provide adequate and transparent governance,
- Re-look at our age old relief and rehabilitation codes and make them more holistic in nature,

- Create an institutional mechanism where the community/stakeholders from all sections of society have an adequate participation,
- Build adequate infrastructure like shelters and storage space, and not the least develop the capacity of the community to support response and rehabilitation measures.

Looking closely at some of the communities I have worked for during disasters since 1999, what I feel is that capacity building of the community on mitigation as well as response mechanism is must. For this we could support endeavors of the volunteer based organization like National Service Scheme (NSS), Nehru Yuva Kendra Sangathan (NYKS), National Cadet Corps (NCC), NGOs, Self Help Group members and the local government functionary like the Gram Rakhi and Panchayati Raj Institutions (PRIs).

In addition to this, there is need for providing better institutional mechanism to clearly define roles and responsibilities at all levels. We also need to acknowledge and support the local coping mechanism prevalent in the community. One of the good practices of community involvement during and crisis of a sustainable community preparedness initiative was undertaken in the Dhemaji District of Assam during the 2003 Floods. Affected villages were given Relief Kits consisting of a tarpaulin, hand pump, utensils and buckets not for individuals but for the community, the village called Gaon Buda was responsible for it and even today after so many years the kit is available for use during a disaster and even used during normal time. For more details please contact Ravinder from Rural Volunteers Centre, Dhemaji District at [rvcassam@gmail.com](mailto:rvcassam@gmail.com).

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### **Avdhash Kaushal, Rural Litigation and Entitlement Kendra (RLEK), Dehradun**

We are an NGO based in the Uttarakhand and working in five states of India. In the two states i.e. Uttarakhand and Himachal Pradesh where the organization has been working on the issues of Gender equity in governance, legal literacy, disaster management education, health etc, has a difficult geographic terrain and prone to natural disasters, which in the past has taken a heavy toll of mankind.

I wish to say that though in most of the states there is a provision of a committee on Disaster Management at the state and district level but as mute bodies. The panchayats have been recognized all over as an institution of democratic decentralization where the community has a direct interface with these bodies especially the first rung the Gram Panchayat. But there is little that the gram Panchayats can do in case of Disasters. I feel that since the Gram Panchayat is the rung that represents people should be the body that has to be prepared for disaster management and Mitigation. Each Gram Panchayat should have a



disaster Management plans in sink with all village plans, which shall be approved by the Gram Sabha. This can be an ongoing process at all levels and district mitigation plan would be a subset of district annual management plan. District preparedness and mitigation planning will be an integral part of all developmental planning process. Mainstreaming risk management and vulnerability reduction activities in the development plans and enhancing capacities of elected functionaries, Government functionaries, community would ensure that achievements of the program are sustained.

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### **Mahesh Uppal, ComFirst (India) Pvt. Ltd., New Delhi**

In my opinion, a critical requirement today is for a nationwide helpline on disasters. Just like banks, insurance and other service companies who provide a free phone access to their help desk, there must exist an easily remembered free phone number for disasters also.

This centralized service should be available to provide information like; casualties, names of dead, injured etc; contacts of hospitals where casualties are taken; kinds of help required (e.g. blood donation, money etc) and how the public can contribute; intelligence on suspicious activity and risky buildings, rivers etc

With this goal, a series of processes can be put in motion to take care of back end issues, both to deal with future disasters in a predictable and systematic fashion as well as help to prevent many of them. Suitable economies and experience building would be an added advantage.

The central helpline is technically doable and can be developed and made more sophisticated with the help of professionals as well as other interested people.

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### **N. B. Mathur, Confederation of Indian Industry (CII), New Delhi**

The Solution Exchange for the Disaster Management Community is a brilliant initiative by the United Nations. The continuous exchange of ideas and experiences will definitely create an enabling environment for strengthening Disaster Management Process. Confederation of Indian Industry (CII) welcomes this initiative.

Based on the past and present CII experiences, I would like to mention that the following will go a long way in strengthening the Disaster Management effort in the country:

- Awareness Generation on location wise multi hazards and for this, the same database /maps should be shared around the country so that everybody speaks in the same language. Locally this can be done by using Mass Communication Methods (TV, Radio)

- Sharing of District and Region wise Scientific Risks Vulnerability Assessment.
- Micro-zonisation of Urban Habitats existing and proposed. This will ensure that no habitats in future are constructed on unsafe areas where the foundations will be inadequate or need special measures. Some of the habitats and Industrial Estates are sitting on fault lines.
- Existing weak structures need to be identified for retrofitting / demolition. Approval of financial loans for construction need to be linked to location hazards and insurance.
- Facility for Physical Training of Industrial Personnel and others in Disaster Management especially for evacuation, search, rescue and relief.
- Designing of a Super Structure (especially for rural areas) which will withstand all types of calamities. The cost implications need to be shared with Members of Parliament and a suggestion made to them to use their Local Area Development funds for construction of such structures in their constituency. The Super Structure will be self generating in power , have facilities for purifying water for drinking & treatment of waste generated, a medical clinic, a heli-pad, life boats and other life saving equipment, adequate stocks of food and medicine supplies, etc. In peacetime, this could be used as an educational institute / school, a communications centre, a community centre and a medical clinic. What is required is to developing a model super structure for others to emulate. This could later turn out to be movement, and if that be so, funds support will flow from the state governments and private sector as well.
- Uniformity in Building & Construction By-laws across the country.
- Regular flow of information for all through mass communication on Fore-Warning Systems and the subsequent steps to be taken by the population likely to be affected.
- Having a Nationalized Disaster Management Services (NDMS) comprising of officials who under go a three to five years posting for such work and are readily available in times of need so that their experience and expertise does not go waste and we have the manpower to face all types of eventualities.
- Expanding the portfolio and professionalizing of the entire Cities' Fire Services to respond to multi-hazards as well.
- Representation of the Corporate Sector in various Central, State and District Committees in regard to Disaster Management.

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**Rashmi Gangwar, Centre for Environment Education (CEE), Lucknow**

Greetings from Centre for Environment Education (CEE)!



The natural calamity turns into disaster when it affects the life and property. Earthquakes normally do not kill people but the unsafe man made structures take the lives. As agreed by most of us preparedness is more important than the management.

CEE has remained intensely involved in the management of post disaster situations in Gujarat earthquake, Tsunami and the Kashmir earthquake. Though CEE has helped people for shelter, livelihood, civil society development but education and psychosocial care has remained the main focus.

CEE is working with the students and teachers for preparedness towards Disaster Risk Reduction. Open air school programmes popularly known as 'Umang' were done immediately after the earthquake in Uri and Tangdar with an objective of creating awareness about the science of earthquakes to mitigate the prevailing misbeliefs and taboos in the society. Focus of the campaign would be on general awareness about disasters including do's and don'ts, evacuation plans for individual schools, identification of disaster prone villages and development of contingency plans etc. Thus by addressing the students and teachers we can involve the community at large for preparedness. To read more click [www.ceehimalaya.org](http://www.ceehimalaya.org).

From our experience while working in Kashmir, I would like to say that teachers and students form very important target group for preparedness. Disaster education needs to be the part of school curriculum. In addition, students need to be made aware of the possible disasters that can strike to the area they live in. Local level disaster management plans can be formed involving this target group. Do's and Don'ts during and after the disasters should become a regular feature of school notice boards. Once a child is addressed the family is taken care of thus the community also gets the message about preparedness.

Also, towards community preparedness advocacy at local level is very important and competent NGOs can play an important role; A database of agencies already associated with disaster related activities, their strengths, geographical areas etc would be useful for emergencies and sharing on existing government initiatives with the Disaster Management Community would help many to give new direction to their ongoing and future initiatives.

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**N. K. Agarwal, Geological Survey of India, Dehradun** (*response 2*)

I feel that there is a need for views and reactions from experts on the subject. So far, the Disaster Management strategies are only confined to relief and rescue Preparedness. There is a need of Damage reduction and prevention strategies as well. Also, the codes and standards should be followed and enforced for safety, damage reduction and prevention strategies. Further, communities should not be allowed to settle in sites and areas vulnerable to disasters. I strongly feel that

awareness campaigns are good in the sense that they sensitize communities towards disasters but the state mechanism of Disaster Management machinery most important to function properly.

For example, we have seen large damage and causality due to communities occupying areas vulnerable to tsunami. We failed to identify areas vulnerable to tsunami incidents. The scientific-administrative community could not to timely appreciate the damage potential of the event about to hit our coastal and off shore areas. This can be taken as a bench mark incident to test the existing Disaster Management preparedness. Similar bench marking can be done for other known disasters and disaster scenario.

Disaster Management is highly specialized operation and needs interdisciplinary inputs for pre-disaster preparedness and this most vital element is missing.

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**Santosh Kumar, National Institution for Disaster Management (NIDM), New Delhi**

I work with the National Institute of Disaster Management, New Delhi ([www.nidm.net](http://www.nidm.net)) and I am delighted to be the part of Solution Exchange and hope to learn from everyone on various issues related to disaster risk reduction and management.

Coming to the query raised by Vice Chairperson, National Disaster Management Authority, I have the following thought to be offered which are based on my field experience:

First of all we need to define **community**. We are addressing which community? Community at risk? Rural community or urban community? Poor community or the other than the poor community? Community living in the hazard prone area or the safe area? Community is not a homogeneous or monolithic category. It is heterogeneous and varies from place to place. So any Community based plan must be designed and focused around much focused community and their problems.

Community's interface with the risk due to hazards is maximum and so they understand the risk best. Any out side intervention and facilitation will always have a certain degree of knowledge gap in comparison with the local community. Community, with or without external support have been managing risks since ages so we should trust in their existing capacity. And the flag for risk reduction should be in their hands. Empowering local institutions, providing strong policy support for building their capacity, providing resource and technical support as government commitment will enable community to look for risk reduction.

There are a few major community based risk reduction models from India to be shared, which are not only unique but also complete example of risk reduction



framework. Actually all Community Based Disaster Risk Management (CBDRM) framework should learn lessons from these experiences. Below are some of them:

- The Dasholi gram swaraj Mandal experience of Uttaranchal led by local women and facilitated by Chandi Prasad Bhatt especially after the incident of Alaknanda floods in the Hills of Garhwal Himalaya
- The Jhezari movement of Rajasthan, led by local women of Bishnoi community to fight against reeling drought situation
- The Alwar Water movement Alwar, Rajasthan, led by the local community and facilitated by Rajendra Singh
- The Rale Gaon Sidhi experiment in Maharashtra, led by community and facilitated by Anna Hazare. Some lessons can also be drawn from new initiatives being carried out by Red Cross, Care, Oxfam and United Nations Development Programme' Disaster Risk Management (DRM) project in India.

These community led models should be documented, analyzed and lessons learnt can be brought in the project as its components. These models are based on the real democratic principle- for the people, by the people and to the people.

Any community-based programme must be designed with the intention of empowering people. So people's empowerment approach should be considered as one of the guiding principles of the Community Based Disaster Risk Management (CBDRM). These have been able to encompass the concept of sustainable development, disaster risk reduction and community empowerment.

A Disaster Management policy must ensure financial, executive and political delegation of Disaster Risk Management to the community and community level institutions and will promote wider stakeholders' involvement and participation.

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### **Kalika Mohapatra, United Nations Development Programme (UNDP), Bhubaneswar**

All must be aware of success of community based disaster preparedness in Samiarpettai village of Tamil Nadu in the aftermath of Tsunami.

Similar successful community based preparedness cases are also available in Orissa. I wanted to share some of the recent success stories in Orissa during flood 2006, where the community members could save themselves, properties and their neighbors'. In July 2006, Orissa had faced severe flood situation in five phases covering 27 districts out of 30 and most of the non-flood prone districts were even affected. Rayagada is one of drought prone areas, whereas last year it experienced severe flood. It is here to be informed that, Rayagada is one of the programme districts of the GoI- UNDP Disaster Risk Management (DRM) Programme. So, most of the villages have formed disaster management

committees, Disaster management teams (DMT) and have even formulated DM plans. DMT members are trained on various aspects like First Aid, Search & Rescue techniques, Shelter management, Counseling and Damage assessment, etc. In one midnight of July 2006, the villagers of Bandhguda, Kolnara block realised that the flood could cause extensive damage to few houses. The DMC members met to take stock of the situation, and immediately evacuated the affected people and sheltered them in a safe place. The community agreed to use the Community Contingency Fund and fed the affected victims for a month. The Community Based Disaster Preparedness process has succeeded in empowering the community people to a great extent. This was experienced during the flood time, when they collectively put pressure on the government for early settlement of compensation. Not only the affected families of Bandhaguda got the assistance but villagers of other 40 affected villages also got their compensation and assistance within a week. The community even used the media (local TV channels) and support of Panchayati Raj Institutions (PRI) members to put pressure on district administration for early release of the compensation amount.

Another case- Palsipani village in Komna block of Nuapada district is one of the drought prone and one of the poorest village in Western Orissa. The village had visited sever drought since 2000 and in later part of 2004 with UNDP's intervention, villagers prepared the Community based disaster management plan and formed various teams to support at the time of need. The DM plan was prepared based the local need, social customs and availability of natural resources. It was a collective analysis of the villagers based potential and unutilized natural resources to tackle the drought situation in a combined approach. Currently, all the farmers of the village are having a common goal to mitigate the drought situation in an integrated manner. Through the Community based disaster management process, the capacities of the community were strengthened. Today every developmental programme are implemented based on the disaster management plan. The community is now involved in identifying the location of the water harvesting structures, finalising the BPLs families list and distribution of all the development works among the pre identified families. Now the greenery of the village is clearly visible to all and it is the efforts of the community based disaster preparedness.

This is only possible when community realises the need for preparedness and the initiatives are supported by the local administration and local self-government.

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### **H. S. Sharma, Independent Consultant, Gurgaon**

My comment would confine to nuclear disaster whether man made or natural. General awareness for the public at large is required. The doctors should be trained to identify the symptoms and how to treat them. I gave a lecture to physicians of Haryana at all district Head quarters in 1990 during Iran Iraq war to



prepare them for any eventuality. We also need awareness generation in all towns located near nuclear power plants /facilities like Rawat Bhatta (Rajasthan) Kalpakam (Tamil Nadu) Khakrapar (Gujarat) Jadugoda mines (Bihar), Narora (U.P.), BARC (Bombay) etc.

I have written a book in Hindi entitled "Protection from Nuclear Attack". Please contact me for more details.

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### **M. P. Sajnani, Asian Disaster Preparedness Centre (ADPC), New Delhi**

The pre-requisite to improving community preparedness and participation is generating community awareness.

NDMA has already made a beginning through mass media advertisements for specific disasters. However, at micro level, involvement of key stakeholders to promote awareness is necessary. The key stakeholders may be government officials at below-district level, elected representatives of local authorities, and civil society organisations, active at grassroots level. For this purpose, Training of Trainers (TOTs) for these stakeholders needs to be organised with the assistance of National Institute of Disaster Management (NIDM), Administrative Training Institutes (ATIs), and United Nations systems. The issues for mobilizing financial and technical support need to be addressed. We should draw up a roadmap to involve these stakeholders for awareness generation.

In addition to mass media publicity, wall paintings, hoardings, bus-back panels in local languages and, above all, person-to-person contacts through the stakeholders may be very useful. We all know that an awarded community is more participatory. Therefore, a two-pronged approach is desirable; at macro level through mass media interventions by National and State Disaster Management Authorities; and at micro level through community leadership by involving the key stakeholders.

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### **Rama Kashyap, United Nations Development Programme (UNDP), Chennai**

The United Nations Team for Recovery Support (UNTRS) in Chennai has instituted a study "Coping with Tsunami: An Exploratory Study on Disabled Persons in Tamil Nadu with Special Reference to Women with Disability".

The main objective of the study is to suggest models of intervention for all Public Works Departments (both pre and post tsunami PWDs) in all the phases of disaster management with special emphasis on women and children. The research team has just completed the pilot phase and one of the suggestions that have emerged is for the inclusion of Persons With Disability (PWD) in the disaster

preparedness activities. We do not have more details at the moment on the specific suggestions offered by the respondents. However, the data collection is on in the three districts of Chennai, Kanyakumari and Nagapattinam. Thus, in a few weeks time, we should be able to share with you all the specific suggestions for inclusion of PWDs in disaster preparedness. Meanwhile you may visit the UNTRS website [www.un.org.in/untrs](http://www.un.org.in/untrs) for some more information about the study.

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**Arun Sahdeo, National Institute of Disaster Management (NIDM), New Delhi**

I work in National Institute of Disaster Management and this is in response to the Query of Vice Chairperson, NDMA regarding improving Preparedness and Community Participation.

I would like to say that first we need to identify the Vulnerable Communities. Who are they? They could be School & college going children/adults. They could be Villagers living in coastal areas or riverbanks. They could be slum dwellers. They could be urban dwellers. They could be corporate giants. So on and so forth. These communities have different degrees of vulnerabilities to various natural and man made disasters. Can we deal with them in a similar fashion? No is the big answer.

We need a multi-pronged, focused strategy to ensure their awareness, preparedness and dynamic and close participation. So the second step should be to identify the respective vulnerabilities of the identified communities. Thereafter the practical solutions and implementation tactics would be required to be explored. How do we do this?

I would suggest that Demand driven, Government enabled/facilitated, Voluntary & Consultative approach of implementation would go a long way in identifying the vulnerabilities, finding the best possible solutions and practical implementation as well as sustenance. Now the question arises as to how to proceed? I am of the firm opinion that the Demand should come from the Communities. Aren't we demanding earthquake resistance houses from the Builders in metropolitan cities vulnerable to earthquake? The vulnerable communities will start demanding all prevention, mitigation, and preparedness measures from the stakeholders once they are made aware of their vulnerabilities. Let us identify the vulnerable communities, map their vulnerability and make them aware of all these in their language. They will ask for the rest and our mission would be accomplished.

73rd and 74th Constitutional Amendments are directed towards empowering the Local Village and Urban elected bodies. Can't we integrate Disaster Management aspects with other developmental aspects such as Health, Education, and Infrastructure etc, which the Panchayati Raj Institutions and Urban Local Bodies (ULBs) have to undertake? DM Act 2005 also prescribes roles for these. The Media



can play a vital role in empowering the vulnerable communities. There are many players. All we need is to synergize the efforts of all stakeholders.

We have very good examples of Community Participation in Development and Disaster Risk reduction as brought out by Prof Santosh Kumar of NIDM. The need of the day is to document these best practices, develop upon them and put up an actionable template for the specific communities.

As far as preparedness of communities for response is concerned, I think only the Volunteerism of the citizens and vulnerable communities can sustain the kind of human, financial and other resources are required for the country. We as a Country are so big, so vulnerable to multiple hazards that neither the Government nor the INGOs/NGOs/CBOs would be able to address the issues in their own. It has to be by the people driven and people centric. If we initiate concerted efforts in that direction may be we achieve desired results sooner than later.

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### **Amit Tuteja, Tata Chemicals Ltd, Uttar Pradesh**

It's wonderful to have such type of platform for Disaster Management Community, where all the experts from various fraternities are well connected. I hope we all shall be able to utilize this platform, as much as possible. Big Thanks to Solution Exchange.

I work as a Facilitator of Risk Management Cell of Tata Chemicals Ltd (TCL), the function of this cell, is to analyze risks (in terms of likelihood & impact) and try to mitigate the same as far as possible, with the help of awareness, training and mock drills etc.

I would like to share my experience with all of you. I hope this case will be able to throw some light at the micro level granularities, related to disaster preparedness and the community participation. The chapter started with a smaller area, to fulfill the statutory guidelines of MSIHC (Manufacture Storage and Import of Hazardous Chemical) Rules 2000 and EPA (Environmental Protection Act) 1986, applicable for Off-site & On-site emergency planning. Further, we also focused in the radius of 20 kms from plant, now presently looking beyond that, also planning for implementation in our other Group units as well. Initially the prime objective was to meet the compliance, in order to prevent the man made disasters, now going beyond that, covering the natural disasters aspect also in our scope. Mentioned below are few key steps of our methodology.

At Pre Disaster Stage for identification & analysis of hazard, past data is referred and probable consequences are evaluated. The overall impact is calculated on the basis of extent of vulnerability. The Participatory Rural Appraisal (PRA) is carried out here, in larger part of Babrala & surroundings, District Badaun by the expert team of Tata Chemicals Society for Rural Development (TCSRDR). TCSRDR is a

separate entity, which deals with rural areas and co-funded by TCL & GoI. Through PRA, the villagers sometime throw light on very vital aspects pertaining to Disaster Management. Indeed, it's a good learning experience and an example of Community Participation at grass root level.

After the hazard identification & analysis, the focus is on preparedness, mitigation & prevention part. And for this, number of programs/ activities has to be conducted to address the variety of audience separately. Because every segment possess a different set of skills and need expertise differently. We are trying to tackle it, by developing separate capsules as per the type of the community.

To state an example; Village level awareness programs have been exclusively made for villagers. The understanding of plant employees may be bit different; hence, there is a separate training capsule for them. Apart from it, the sensitization program for schoolchildren and other communities (including township residents, ladies group etc) have also been designed differently. We have also taken help of UNDP, Nehru Yuva Kendra Sangathan & local NGOs in conducting programs, preparing and circulating reference materials, handouts & work instructions (with Do's & Don't) addressing each probable disaster.

To handle the situation "During Disaster" the employees & residents are well trained, through training sessions. To check the actual effectiveness of these awareness programs & training sessions, periodic drills have been conducted. Prime objective of these drills is to check the effectiveness of existing Disaster Management system, and apart from it, these drills also help us in removing fear from the minds of community about the probable disaster. Once community will participate in it, automatically they shall be well prepared when actually the requirement will come.

The Post Disaster scenario is also a very important phase; it covers response, rehabilitation, reconstruction, recovery etc. Without perfection in this, loop cannot be closed. To my mind, it's a grey area in general, although lots of promises & deadlines are fixed. But honestly, the question should be asked to us, that how much rehabilitation has really been done / normally implemented at grass root level. At our unit level, we couldn't able to do much in this segment due to limitations at our end. Although during Off-Site emergency mock drill, we had carried out the evacuation of villagers, search, rescue and relief operations with the help of trained volunteers and emergency medical team.

So apart from the above case, following are some suggestions related to community participation and disaster preparedness:-

- Off site, emergency mock drill should be conducted annually in each district. In my view, it's a mirror, which shows true picture, and help us in checking the preparations of all key functions. Emergency Operations Centers (EOCs) to be set up in all districts.



- Legal framework should be further strengthened; especially the District Disaster Management Authorities should be more empowered.
- To sensitize the community, more awareness programmes, training camps to be organised via District Administration and NGOs. At least basic Do's & Don'ts should be explained and promoted through boards, hoardings etc.
- To bring the uniformity in building & construction, building byelaws should be rigorously followed.
- District Administration should be well trained to utilize the GIS based database, during the emergency. This will definitely help a lot in the movement towards safe shelter place.
- Apart from schools, Disaster Mgmt. also to be included in curriculum of Vocational Training Centres, Technical Institutes etc.
- Hospital emergency services, trauma centers to be equipped with all necessary equipments, with the trained manpower.
- Fire services to be well equipped at all the hazard units, and as far as possible to be located within the distance of maximum 10 minutes of reach to the site.

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**Sampurnananda Mahapatra, United Nations Development Programme (UNDP), New Delhi**

Looking into Hon'ble Vice Chairman of NDMA, General N.C. Vij's query, I would answer on Community Based Disaster Preparedness (CBDP) from the perspective views of the community with whom I had opportunities to work.

The query made by NDMA is answered herewith from perspective viewpoints community's feelings, sentiments, problems, prospects, community volunteerism etc to facilitate an effective Community Based Disaster Preparedness (CBDP).

I am attaching here a paper on CBDP that tries to idealise an approach for facilitating CBDP to community with promotion of volunteerism. For an effective facilitation, it describes the parallel activities to be carried out by a facilitator such as community leadership, participatory mapping exercises, training and capacity building of community followed by series of mock drills by the community to achieve overall quality in CBDP. It also idealizes a way for a participatory financial facilitation for risk reduction and development of community.

The paper briefs about the promotion of volunteerism through institutional linkages of community with local administration to convert the mission of CBDP into a movement. It also highlights some other important issues pertaining to CBDP as such participation of women, time availability of community for CBDP, identification of a key man in the community for community mobilization, idealizing a common slogan for CBDP and requisite social etiquette to be

maintained by the facilitator at community level before motivating them. The paper written under a title of "Community Based Disaster Preparedness: of the community, by the community and for the community" is expected to answer the query made by Hon'ble Vice Chairman of NDMA. To read the paper click <http://www.solutionexchange-un.net.in/drm/cr/res08050701.pdf>

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*Shares experiences and tools & technologies for effective handling of Industrial and Chemical disasters. Also highlights role of private and non government organisations in promoting it.*

6. **Process Documentation of Disaster Risk Management Initiative- Examples; Experiences, from Pradeep Kumar Jena, United Nations Development Programme, New Delhi.** Issued on 30 June 2007.

*Provides experiences and examples on process documentation for Disaster Risk Management Programmes in India to facilitate documentation of UNDP-DRM Programme.*

7. **Social Equity in Disaster Management- Experiences; Referrals, from Raman Kashyap, United Nations Development Programme, Chennai.** Issued on 6 July 2007.

*Shares Experience of addressing social equity issues in disasters and examples of tools or methodologies used in addressing such issues. Also provides referrals of people working on Equity issues.*

8. **Ensuring Coordinated Response during Emergencies (Advice).** Issued 1 August 2007

*Seeks advice and references to ensure structured emergency response coordination, also highlights role of coordination networks to ensure effective coordination during disasters.*

9. **Strategy Report for Hazard Risk Management in India Referrals; Advice.** Issued 10 August 2007

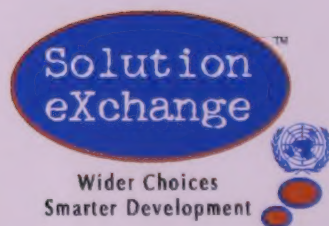
*Outlines important issues in terms of Disaster Management in India that can be included in a National Hazard Risk Management Strategy Report being prepared by World Bank*

10. **Disaster Risk Insurance for Vulnerable Communities - Experiences; Examples, From Thiagu Ranganathan, Center for Insurance and Risk Management, Institute for Financial Management Research, Chennai.** Issued on 20 August 2007. Cross-posted with Microfinance Community.

*Discusses Disaster Risk Insurance Schemes for Vulnerable Communities and insights on developing appropriate risk hedging mechanisms for long term risk hedging in Indian context.*

Contributed by  
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